

# CONSTRUCTION



**Maryland Department of Labor, Licensing and Regulation  
Division of Workforce Development  
Office of Workforce Information and Performance  
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## Construction Cluster

### What is included in the Construction Cluster?

The Construction Cluster includes establishments primarily engaged in the construction of buildings or engineering projects. Establishments engaged in the preparation of sites for new construction and establishments engaged in subdividing land for sale as building sites are also included in this cluster. Activities of these establishments generally are managed at a fixed place of business, but construction activities are usually performed at multiple project sites. There are substantial differences in the types of equipment, work force skills and other inputs required by establishments in the construction cluster. To highlight the differences and variations in the underlying production functions, the construction cluster is divided into three subsectors.

The **Construction of Buildings** subsector comprises establishments primarily responsible for residential, commercial, industrial and other buildings. On-site assembly of prefab buildings and construction of temporary buildings are also included in this subsector. Part or all of the production work for which establishments in this subsector are responsible may be subcontracted to other construction establishments, usually specialty trade contractors. Included in this subsector are:

#### NAICS

- **2361** Residential building
- **2362** Nonresidential building

The **Heavy and Civil Engineering** Construction subsector includes establishments whose primary activity is the construction of entire engineering projects such as sewers, highways, bridges, and tunnels among others. Also included are specialty trade contractors whose primary activity is the production of a specific component for these projects. Included in this subsector are:

#### NAICS

- **2371** Utility system construction
- **2372** Land subdivision
- **2373** Highway, street and bridge construction
- **2379** Other heavy construction such as land drainage, golf course, subway, etc.

The **Specialty Trade Contractors** subsector comprises establishments whose primary activity is performing specific activities (pouring concrete, site preparation, plumbing, painting, electrical work) involved in building construction or other activities that are similar for all types of construction but are not responsible for the entire project. Included in this subsector are:

**NAICS**

- **2381** Building foundation and exterior contractors such as siding and roofing contractors
- **2382** Building equipment contractors such as plumbing and electrical contractors
- **2383** Building finishing contractors such as drywall/insulation, painting and flooring contractors
- **2389** Other specialty contractors such as demolition, excavating and septic system contractors

For additional descriptive information on NAICS, go to [www.census.gov/epcd/naics02/](http://www.census.gov/epcd/naics02/)

This publication was developed using data from the Quarterly Census of Employment and Wages (ES 202) and from the Occupational Employment Statistics (OES) Programs.

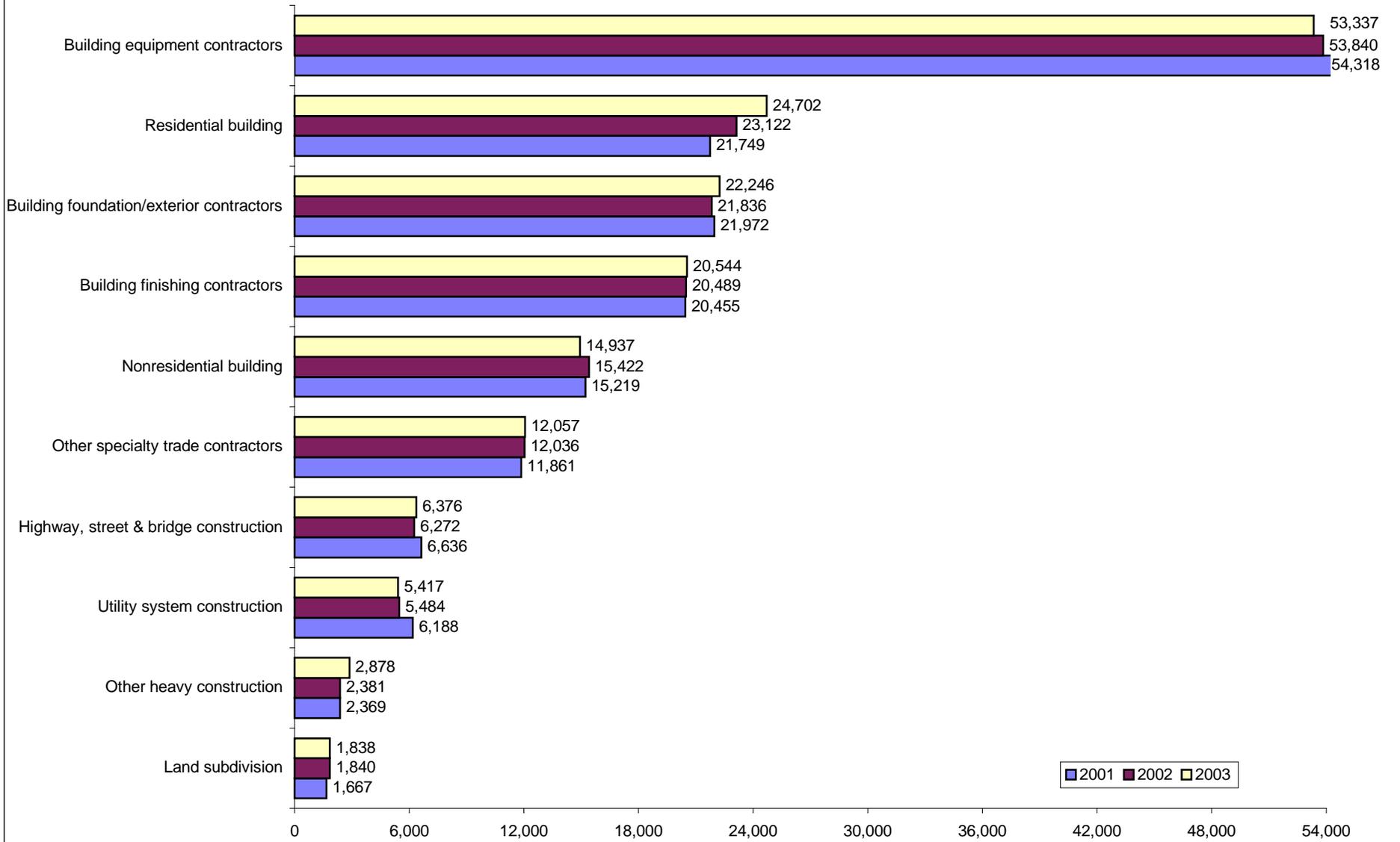
**Maryland**  
**Employment and Wages in the Construction Cluster Industries**

NAICS	Industry Description	Employment			Payroll			Average Weekly Wage
		2001	2002	2003	2001	2002	2003	2003
23	<b>Construction</b>	166,427	166,525	167,723	\$6,682,704,532	\$6,844,179,835	\$7,086,611,766	\$813
	<b>Construction of Buildings</b>	36,968	38,544	39,639	1,594,348,527	1,708,917,718	1,860,950,515	903
2361	Residential building	21,749	23,122	24,702	849,919,088	931,210,209	1,072,935,458	835
2362	Nonresidential building	15,219	15,422	14,937	744,429,439	777,707,509	788,015,057	1,015
	<b>Heavy &amp; Civil Engineering Construction</b>	16,860	15,977	16,509	684,853,825	658,159,984	696,253,001	811
2371	Utility system construction	6,188	5,484	5,417	248,588,033	223,296,073	215,291,227	764
2372	Land subdivision	1,667	1,840	1,838	87,194,330	100,024,910	109,379,755	1,144
2373	Highway, street & bridge constr.	6,636	6,272	6,376	261,313,914	243,573,970	257,371,229	776
2379	Other heavy construction	2,369	2,381	2,878	87,757,548	91,265,031	114,210,790	763
	<b>Specialty Trade Contractors</b>	108,606	108,201	108,184	4,239,262,583	4,312,206,417	4,385,843,098	780
2381	Bldg. foundation/ext. contractors	21,972	21,836	22,246	753,587,795	774,616,721	788,451,445	682
2382	Building equipment contractors	54,318	53,840	53,337	2,378,688,582	2,397,660,461	2,431,854,474	877
2383	Building finishing contractors	20,455	20,489	20,544	693,323,161	708,465,648	723,191,136	677
2389	Other specialty trade contractors	11,861	12,036	12,057	413,663,045	431,463,587	442,346,043	706
N/A	<b>Nondistributable*</b>	3,993	3,803	3,391	164,239,597	164,895,716	143,565,152	814

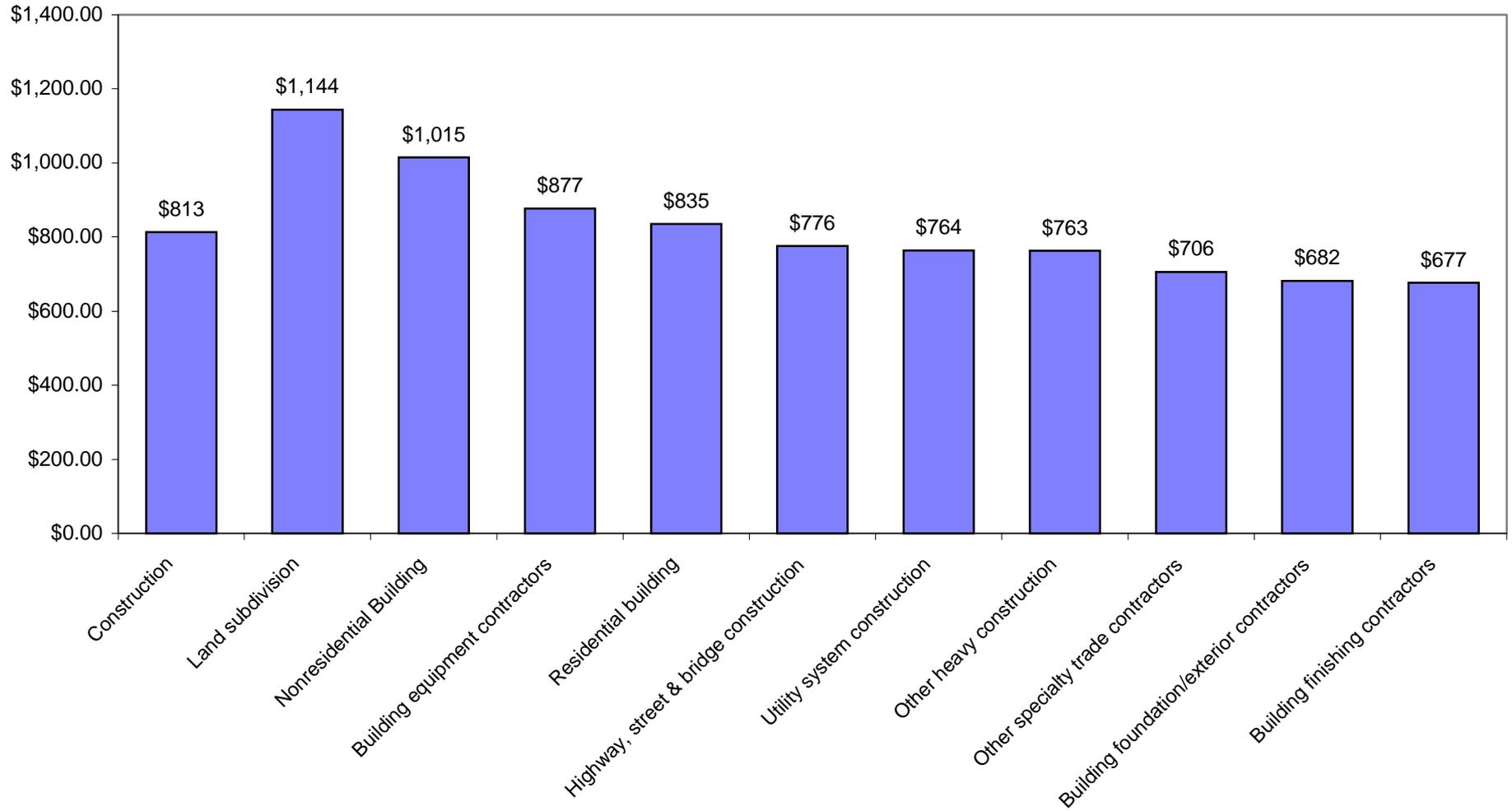
- Jobs in the construction cluster account for about 6.9% of Maryland's employment base. Nearly two-thirds of all employment in the cluster is among specialty trade contractors.
- About 1,300 jobs were created by Maryland-based construction companies through 2003. Expansion, however, was limited to just a few employment sectors. The surge in building activity generated by low interest rates translated into rising employment among residential building contractors, making this employment sector the largest jobs producer since 2001.

\* Includes establishments in all construction cluster NAICS industries that cannot be distributed geographically.

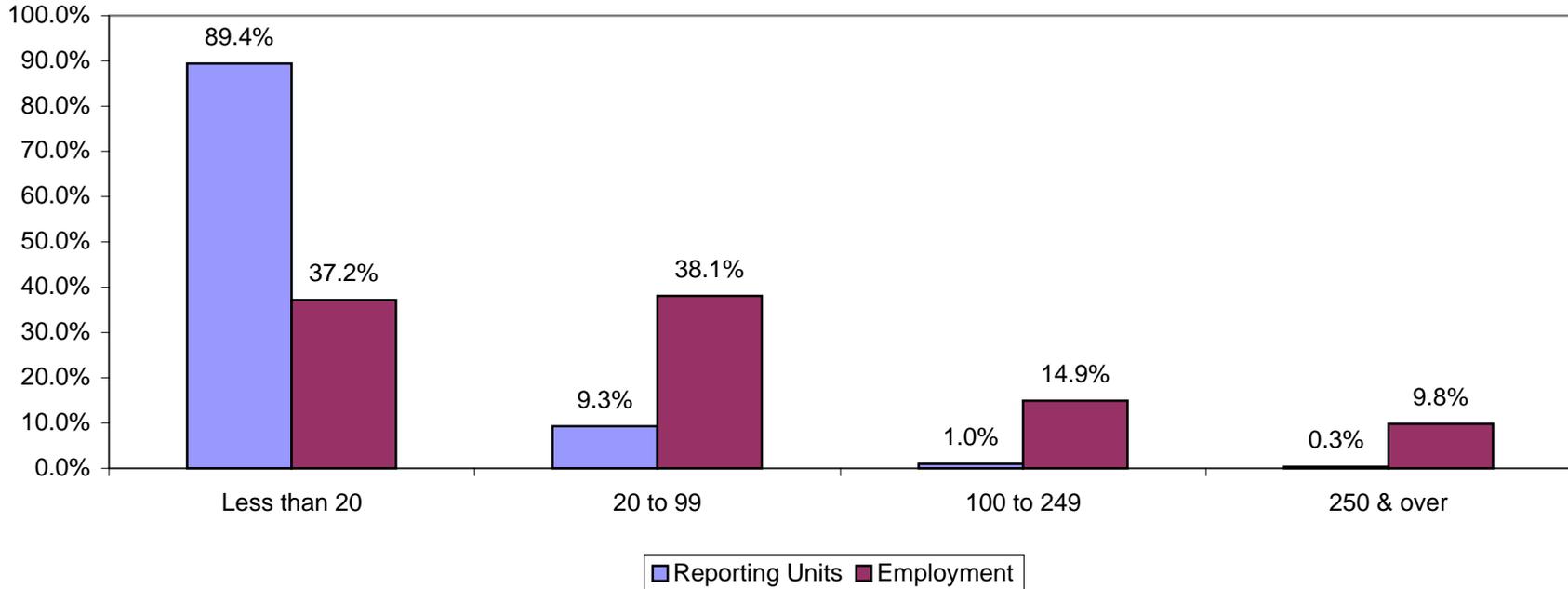
**Maryland  
Employment in the Construction Cluster Industries - 2001-2003**



Maryland  
Average Weekly Wage in Construction Cluster Industries - 2003



**Maryland**  
**Reporting Units and Employment Concentration in the Construction Cluster by Size Class\***  
**Based on 4th Quarter 2003 Average Employment**



	Reporting Units				Employment			
	Less than 20	20 to 99	100 to 249	250 & over	Less than 20	20 to 99	100 to 249	250 & over
Construction Cluster	15,191	1,587	169	39	59,090	60,532	23,699	15,626
Percent of Total	89.4%	9.3%	1.0%	0.3%	37.2%	38.1%	14.9%	9.8%

- Most of the establishments in the construction cluster tend to be small, the overwhelming majority employing fewer than 20 workers. The dominance of small employers can, in part, be explained by the heavy concentration of specialty trade contractors in the industry.
- Establishments with 20 to 99 workers, while much fewer in number, employed a slightly higher concentration of employees than establishments in the fewer than 20 size class (38.1% as compared to 37.2%).

\* Includes establishments in all construction cluster NAICS industries that cannot be distributed geographically.

**Maryland**  
**Occupations Typically Associated with the Construction Cluster**

Occupation	Annual Openings *	Annual Replacements *	Annual Openings Total *	Training Code	Median Hourly Wage
Carpenters	460	360	820	9	\$16.75
Construction Laborers	450	290	740	10	12.25
Electricians	460	300	760	9	21.00
Helpers, Construction Trades	245	490	735	11	13.00
Plumbers, Pipefitters & Steamfitters	270	240	510	9	21.50
Construction Supervisors	345	260	605	8	24.75
Secretaries, exc. Legal, Medical and Executive	230	835	1,065	10	13.25
Construction Managers	280	220	500	5	31.25
Cement Masons & Concrete Finishers	115	60	175	10	16.75
Drywall & Ceiling Tile Installers	50	80	130	10	14.00
Sheet Metal Workers	130	130	260	10	17.00
Paving, Surfacing & Tamping Equipment Operators	15	15	30	10	15.25
Operating Engineers & Other Construction Equip. Oprs.	110	155	265	10	17.50
Construction & Building Inspectors	65	55	120	8	18.75
General Office Clerks	695	1,165	1,860	11	12.25
Excavating & Loading Machine Operators	35	35	70	10	14.00
HVAC Mechanics & Installers	255	90	345	9	18.00
Brickmasons & Blockmasons	90	50	140	9	21.75
Roofers	65	55	120	10	16.00
Cost Estimators	95	85	180	8	24.75
Truck Drivers, Heavy & Tractor Trailer	325	390	715	10	16.50
Painters, Construction & Maintenance	65	160	225	10	14.75
Structural Iron & Steel Workers	15	15	30	9	17.00
Bookkeeping, Accounting & Auditing Clerks	150	550	700	10	14.50
Plasterers & Stucco Masons	30	25	55	9	17.25

While the construction industry provides employment for workers with varied educational backgrounds and talents, on-the-job training (both long-term and of moderate duration) is the most commonly recognized means of gaining job proficiency in the majority of occupations found within the industry.

\* Represents economy-wide demand 2002 - 2012

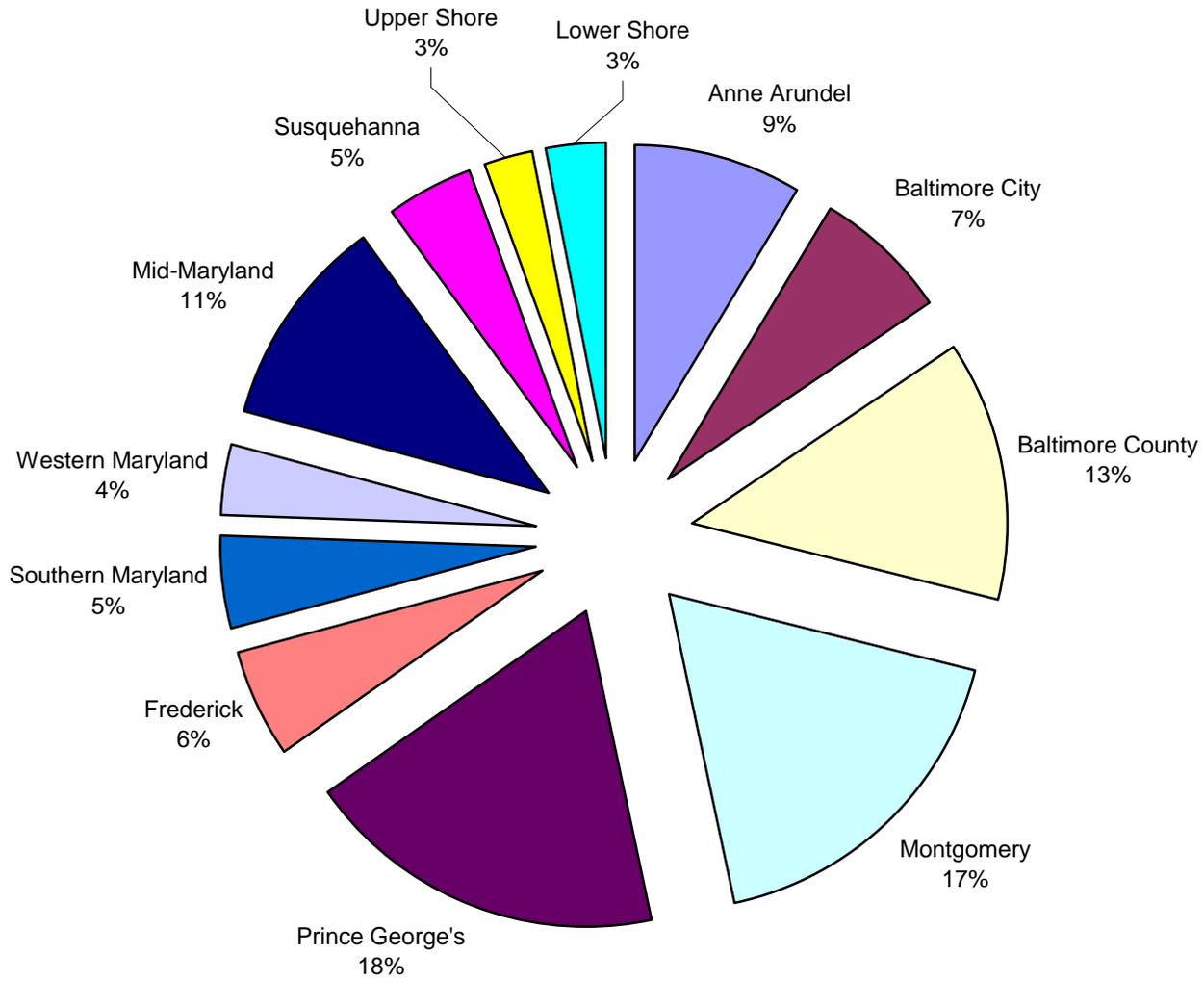
## Education and Training Categories

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Occupations are classified into 1 of 11 categories by the Bureau of Labor Statistics based on analyses of the occupation's usual education and training requirements conducted while developing information to present in the *Occupational Outlook Handbook*. The 11 classifications are as follows:

- 1 **First professional degree.** Completion of the academic program usually requires at least 6 years of full-time equivalent academic study, including college study prior to entering the professional degree program.
- 2 **Doctoral degree.** Completion of the degree program usually requires at least 3 years of full-time equivalent academic work beyond the bachelor's degree.
- 3 **Master's degree.** Completion of the degree program usually requires 1 or 2 years of full-time equivalent study beyond the bachelor's degree.
- 4 **Work experience, plus a bachelor's or higher degree.** Most occupations in this category are managerial occupations that require experience in a related nonmanagerial position.
- 5 **Bachelor's degree.** Completion of the degree program generally requires at least 4 years but not more than 5 years of full-time equivalent academic work.
- 6 **Associate degree.** Completion of the degree program usually requires at least 2 years of full-time equivalent academic study.
- 7 **Postsecondary vocational training.** Some programs last only a few weeks while others may last more than a year. In some occupations, a license is needed that requires passing an examination after completion of the training.
- 8 **Work experience in a related occupation.** Some occupations requiring work experience are supervisory or managerial occupations.
- 9 **Long-term on-the-job training.** This category includes occupations that generally require more than 12 months of on-the-job training or combined work experience and formal classroom instruction for workers to develop the skills needed for average job performance. This category includes formal and informal apprenticeships that may last up to 4 years and short-term intensive employer-sponsored training that workers must successfully complete. Individuals undergoing training are generally considered to be employed in the occupation. This category includes occupations in which workers may gain experience in non-work activities, such as professional athletes who gain experience through participation in athletic programs in academic institutions.
- 10 **Moderate-term on-the-job training.** This category includes occupations in which workers can develop the skills needed for average job performance after 1 to 12 months of combined on-the-job experience and informal training.
- 11 **Short-term on-the-job training.** This category covers occupations in which workers can develop the skills needed for average job performance after a short demonstration or up to one month of on-the-job experience or instruction.

### Construction Cluster - 2003

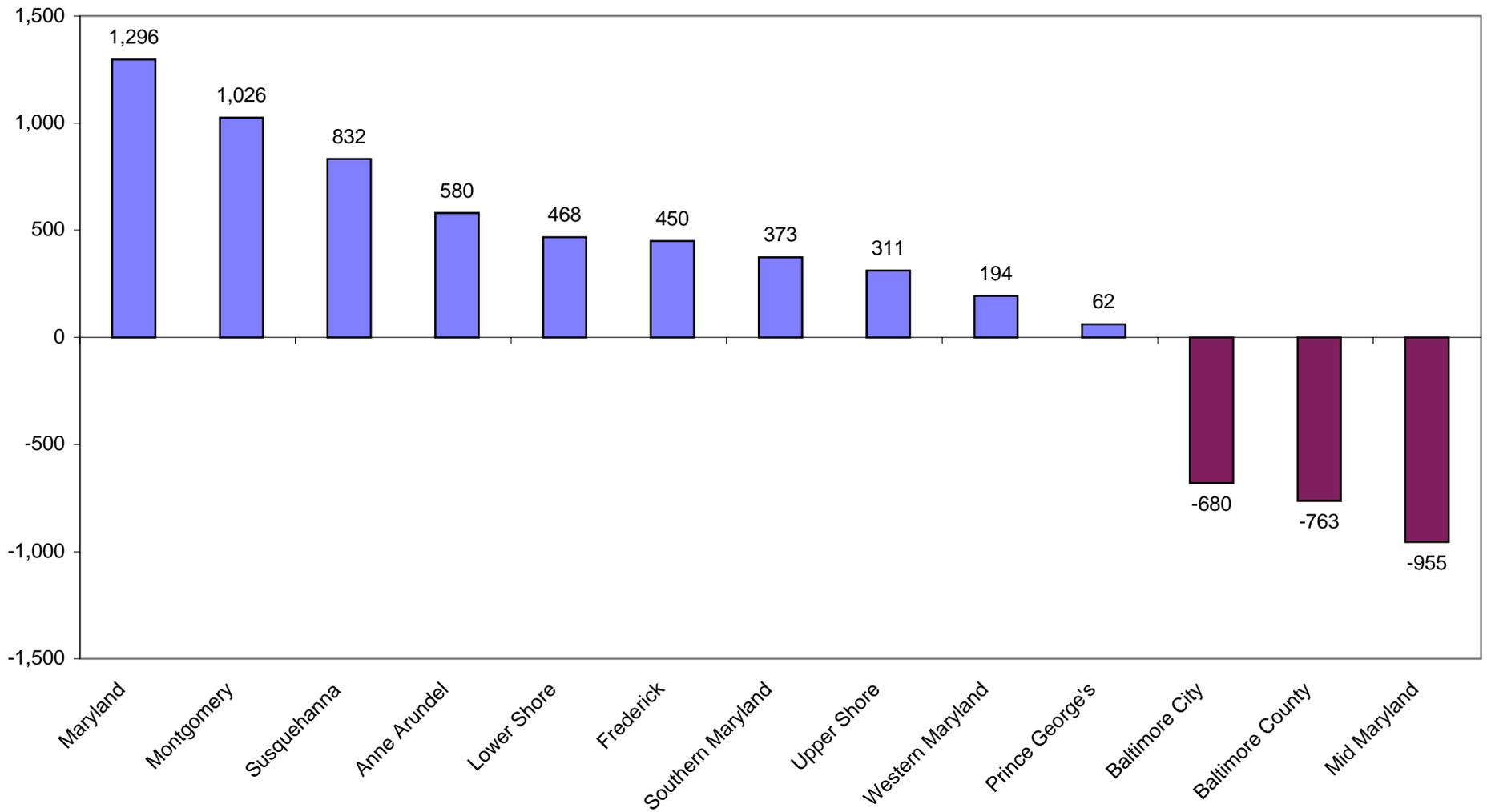


**Employment and Wages in the Construction Cluster  
By WIA and Local Jurisdiction**

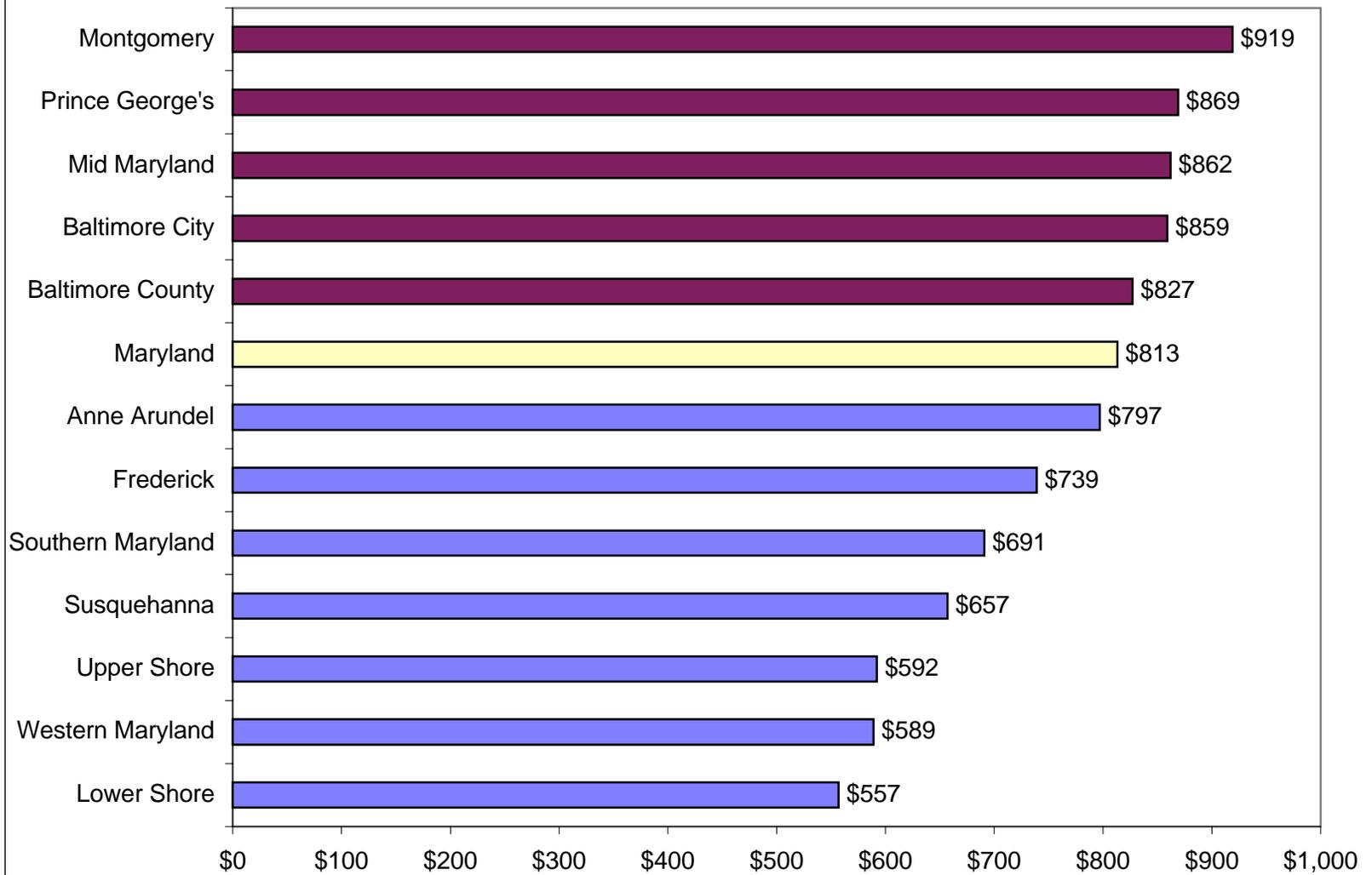
WIA	Employment			Employment Change 2001 - 2003	Number of Reporting Units 2003	Total Wages 2003	Average Weekly Wage 2003
	2001	2002	2003				
<b>Anne Arundel</b>	<b>13,630</b>	<b>14,050</b>	<b>14,210</b>	<b>580</b>	<b>1,763</b>	<b>\$589,056,090</b>	<b>\$797</b>
<b>Baltimore City</b>	<b>12,210</b>	<b>11,767</b>	<b>11,530</b>	<b>-680</b>	<b>894</b>	<b>514,923,221</b>	<b>859</b>
<b>Baltimore County</b>	<b>22,716</b>	<b>22,183</b>	<b>21,953</b>	<b>-763</b>	<b>2,122</b>	<b>943,583,766</b>	<b>827</b>
<b>Frederick</b>	<b>8,750</b>	<b>9,088</b>	<b>9,200</b>	<b>450</b>	<b>953</b>	<b>353,624,544</b>	<b>739</b>
<b>Montgomery</b>	<b>27,830</b>	<b>28,620</b>	<b>28,856</b>	<b>1,026</b>	<b>2,602</b>	<b>1,379,697,923</b>	<b>919</b>
<b>Prince George's</b>	<b>30,463</b>	<b>29,726</b>	<b>30,525</b>	<b>62</b>	<b>1,759</b>	<b>1,380,139,585</b>	<b>869</b>
<b>Lower Shore</b>	<b>4,504</b>	<b>4,576</b>	<b>4,972</b>	<b>468</b>	<b>728</b>	<b>143,967,001</b>	<b>557</b>
Somerset	326	309	395	69	35	9,700,316	472
Wicomico	2,580	2,539	2,716	136	176	84,288,388	597
Worcester	1,598	1,728	1,861	263	390	49,978,297	516
<b>Mid Maryland</b>	<b>18,567</b>	<b>17,927</b>	<b>17,612</b>	<b>-955</b>	<b>1,807</b>	<b>789,697,110</b>	<b>862</b>
Carroll	6,755	6,658	6,514	-241	221	231,138,536	682
Howard	11,812	11,269	11,098	-714	367	558,558,574	968
<b>Southern Maryland</b>	<b>7,293</b>	<b>7,701</b>	<b>7,666</b>	<b>373</b>	<b>1,168</b>	<b>275,641,151</b>	<b>691</b>
Calvert	1,859	1,992	2,231	372	104	83,205,740	717
Charles	3,859	4,076	3,719	-140	222	137,692,975	712
St Mary's	1,575	1,633	1,716	141	127	54,742,436	613
<b>Susquehanna</b>	<b>6,651</b>	<b>7,008</b>	<b>7,483</b>	<b>832</b>	<b>1,110</b>	<b>255,820,331</b>	<b>657</b>
Cecil	1,402	1,570	1,623	221	143	48,899,870	579
Harford	5,249	5,438	5,860	611	303	206,920,461	679
<b>Upper Shore</b>	<b>3,805</b>	<b>3,963</b>	<b>4,116</b>	<b>311</b>	<b>823</b>	<b>126,767,372</b>	<b>592</b>
Caroline	536	578	618	82	31	16,881,410	525
Dorchester	522	543	536	14	46	15,449,098	554
Kent	281	329	347	66	68	9,010,251	499
Queen Anne's	1,082	1,108	1,166	84	80	37,067,056	611
Talbot	1,384	1,405	1,449	65	110	48,359,557	642
<b>Western Maryland</b>	<b>6,015</b>	<b>6,113</b>	<b>6,209</b>	<b>194</b>	<b>791</b>	<b>190,128,520</b>	<b>589</b>
Allegany	1,273	1,354	1,316	43	151	39,868,157	583
Garrett	982	1,045	1,153	171	71	28,654,603	478
Washington	3,760	3,714	3,740	-20	255	121,605,760	625
<b>Nondistributable*</b>	<b>3,993</b>	<b>3,803</b>	<b>3,391</b>	<b>-602</b>	<b>867</b>	<b>143,565,152</b>	<b>814</b>
<b>Maryland</b>	<b>166,427</b>	<b>166,525</b>	<b>167,723</b>	<b>1,296</b>	<b>17,387</b>	<b>\$7,086,611,766</b>	<b>\$813</b>

\* Includes establishments in all construction cluster NAICS industries that cannot be distributed geographically.

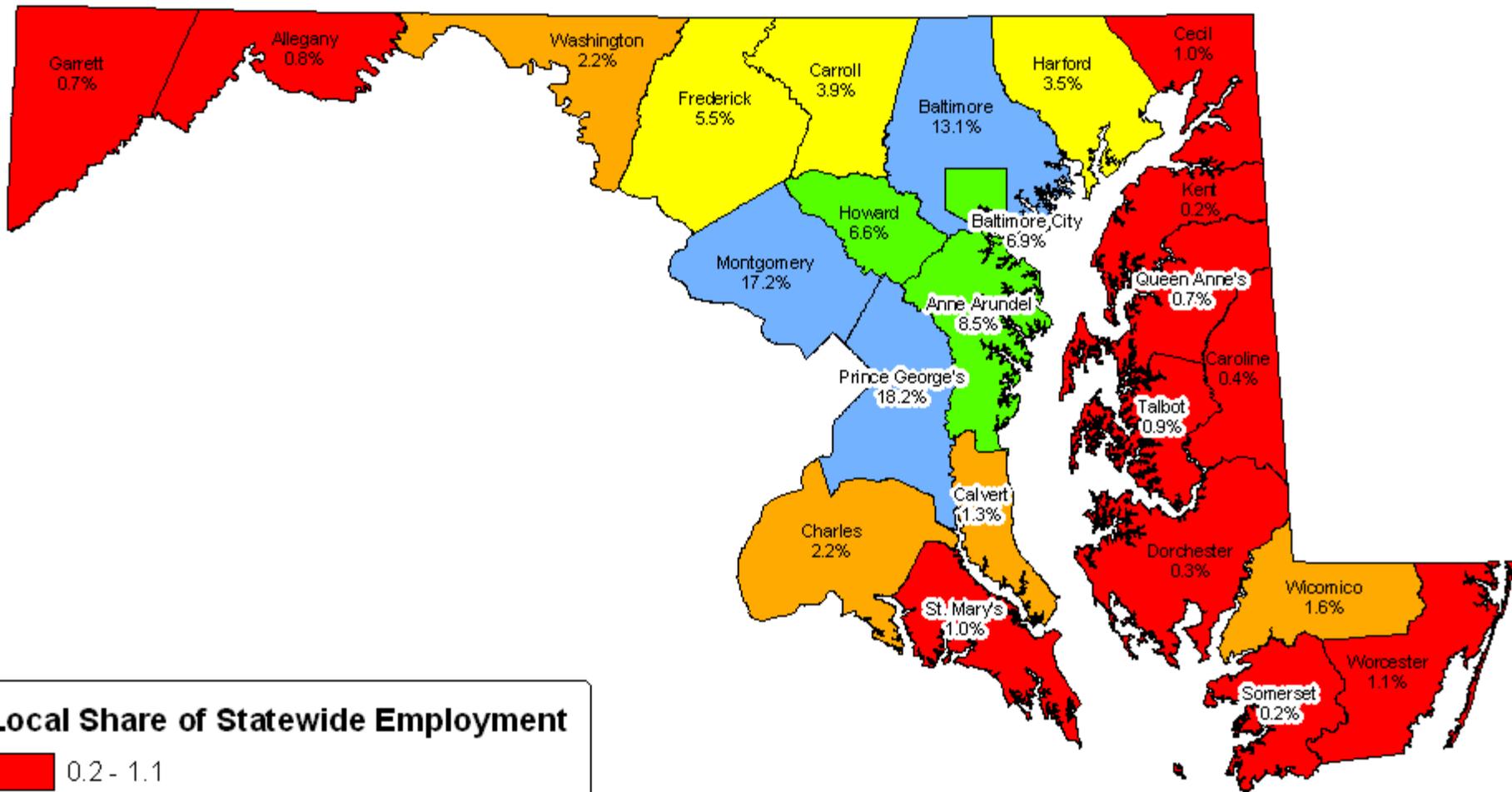
**Employment Changes in the Construction Cluster by WIA  
2001 - 2003**



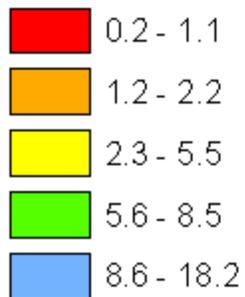
**Average Weekly Wage in the Construction Cluster by WIA - 2003**



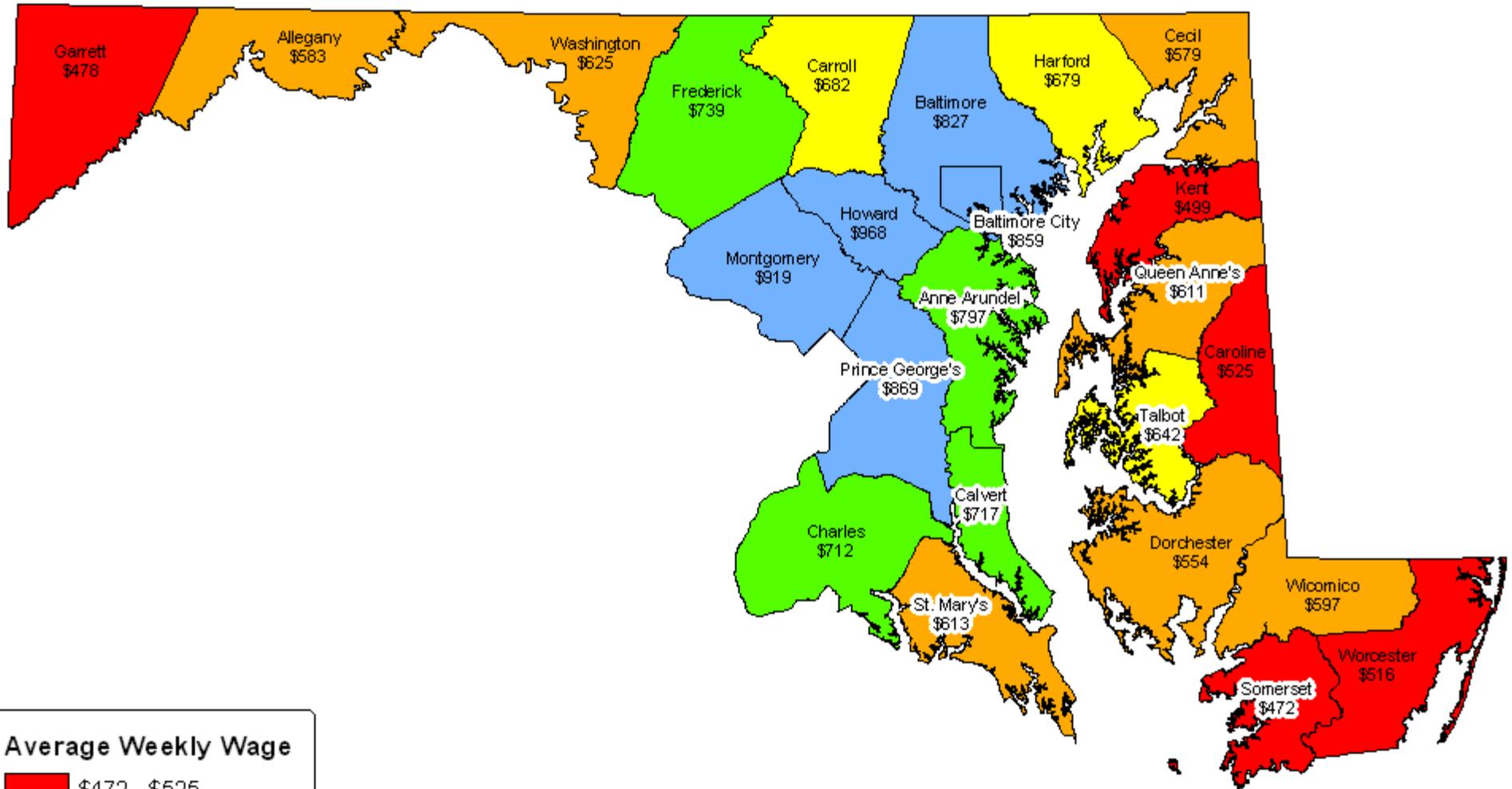
# Local Share of Statewide Employment in the Construction Cluster 2003



## Local Share of Statewide Employment



# Average Weekly Wage in the Construction Cluster by Local Jurisdictions 2003



## Average Weekly Wage

